

Date: Fri, 31 Dec 93 15:30:56 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #1528  
To: Info-Hams

Info-Hams Digest                      Fri, 31 Dec 93                      Volume 93 : Issue 1528

Today's Topics:

"Renewal" batteries -- a note  
Callbooks around the world?  
FFTMORSE  
KENWOOD 732A MODS  
Looking for information  
ORBS\$365.2L.AMSAT  
ORBS\$365.MICRO.AMSAT  
ORBS\$365.WEATH,AMSAT  
Repeater database? (2 msgs)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Fri, 31 Dec 1993 22:26:19 GMT  
From: swrinde!cs.utexas.edu!howland.reston.ans.net!vixen.cso.uiuc.edu!  
newsrelay.iastate.edu!news.iastate.edu!metropolis.gis.iastate.edu!  
willmore@network.ucsd.edu  
Subject: "Renewal" batteries -- a note  
To: info-hams@ucsd.edu

gsmlrn@gsm001.mendelson.com (Geoffrey S. Mendelson) writes:

>Thanks for the inof. I am in the process of converting my nicad "arsenal"  
>to renewal batteries and any info would be helpful.

>As for the reverse charging, try placing a diode in series with the 4.5 volt  
>pack. As no diode has infinite reverse resistance (0 reverse current) there

>may be some reverse charging, but it might be low enough (also depends on  
>the internal resistance of the batteries) to fix your problem. Just about  
>any rectifier diode would do.

>Ray-O-Vac also has a toll free info number and if you call when the engineers  
>are there, they will transfer you to one.

Just a few comments here. For one, Renewal or any other Alkaline battery is a poor choice of power for amateur radio equipment due to their level of current use. Alkaline batteries lose out to high capacity NiCd batteries (for AA size) at about 300ma of current draw. Almost any transmitter fits into this category. TNC's and other small devices may be able to make use of Alkaline batteries, but a transmitter or a receiver (with a speaker) will easily draw more power than that.

If you really want to spend a lot of money, just buy some NiMh batteries. They cost about the same as Renewal and will provide a longer life (charge to charge) than will Renewal batteries. The last time I priced NiMh AA's, they ran for \$6.00 each. I'm sure that you can find them for less than that now.

Regarding the use of a diode to protect a cell from reverse charge, you would need a perfect diode to perform this function. Putting a diode in parallel with a cell would prevent that cell from being reverse charged more than .6V--which wouldn't do any good. Putting a diode in line with the batteries will either prevent them from charging or discharging. I don't see how you can protect them from reverse charge by putting a diode in series--unless you do so by preventing them from discharging, also. :)

Cheers,  
David  
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willmore@iastate.edu | "Death before dishonor" | "Better dead than greek" |  
David Willmore | "Ever noticed how much they look like orchids? Lovely!" |

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Date: Fri, 31 DEC 93 15:40:46 EST  
From: usc!howland.reston.ans.net!spool.mu.edu!bloom-beacon.mit.edu!noc.near.net!  
news.delphi.com!usenet@network.ucsd.edu  
Subject: Callbooks around the world?  
To: info-hams@ucsd.edu

I'm putting together a radio-related gopher on the Delphi online system, and while I have pointers to two US callbooks (at Buffalo and the Anomaly one in RI), I'm wondering if there are any other, either in the US or more importantly for other countries. If anyone can pass on that

info, I'd appreciate it. E-mail to VIDGAMES@DELPHI.COM is recommended because I don't monitor this newsgroup very much and will be out of town for most of the next week.

Thanks in advance for your help...

A E

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Andy Eddy, Senior Editor, GamePro Magazine  
VIDGAMES@NETCOM.COM <+=> 818-246-6550 fax/voice/answering machine  
The views expressed in this text aren't necessarily those of my employer  
\*finger me for my recent writing credits and other online accounts\*  
"I don't want the world, I just want your half." -- They Might Be Giants

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Date: Fri, 31 Dec 1993 16:35:56 GMT  
From: usc!math.ohio-state.edu!news.acns.nwu.edu!raven.alaska.edu!acad2.alaska.edu!  
auchd@network.ucsd.edu  
Subject: FFTMORSE  
To: info-hams@ucsd.edu

I have been unable to get FFTMORSE working with my Soundblaster Pro. Can anyone verify if this program will work with SBP or any other helpful hints that might get this thing working?

WL7NO - James M. Wiedle

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Date: 31 Dec 93 13:07:39 -0700  
From: usc!math.ohio-state.edu!cyber2.cyberstore.ca!nntp.cs.ubc.ca!mala.bc.ca!  
babiya@network.ucsd.edu  
Subject: KENWOOD 732A MODS  
To: info-hams@ucsd.edu

Hiya folks, Happy New Year,

Looking for mods for a Kenwood 732A Transceiver.

Anyone have a mod file they can send me?

Net access is spotty over the season, so please email me?

Tnx,  
VE7XDB

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Date: Fri, 31 Dec 93 16:32:03 GMT  
From: netcomsv!netcomsv!bongo!skyld!jangus@decwrl.dec.com  
Subject: Looking for information  
To: info-hams@ucsd.edu

Doesn't anyone read books any more?  
Doesn't anyone go the the library and look for something themselves?  
Doesn't anyone look in technical publications for information?

What is it about the internet that seems to breed the following attitude?

"I don't want to expend the effort to  
look so can someone else do it for me?"

Along a similar thread, how is it that no one seems to think of the  
manufacturers as a source of information?

Are you people really that cheap, lazy or stupid?

Not that the ARRL amateur radio handbook is the be all to end all,  
but it is two inches thick for a reason. Likewise, QST is loaded  
full of advertisements. (As several others complain about.)

Dialing 411 (In the US) gets you directory assistance. Dialing  
1 (area code) 555-1212 gets you directory assistance for any other  
area code. Dialing 1 800 555-1212 gets you the free number directory  
assistance for those of you too cheap to call someone direct.

Now I know there are a lot of obscure technical aspects to amateur  
radio, but geeze people. Get off of your tail ends and look around  
a bit before you waste every one elses time.

And before the self appointed guardians of the net jump on me about  
the remark of wasting my time, consider this, I don't think there are  
any stupid questions. But there sure are a lot of unnecessary ones.

73 es GM from Jeff

Amateur: WA6FWI@WA6FWI.#SOCA.CA.USA.NA	"It is difficult to imagine our
Internet: jangus@skyld.tele.com	universe run by a single omni-
US Mail: PO Box 4425 Carson, CA 90749	potent god. I see it more as a
Phone: 1 (310) 324-6080	badly run corporation."

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Date: 31 Dec 93 16:47:00 GMT

From: news-mail-gateway@ucsd.edu  
Subject: ORBS\$365.2L.AMSAT  
To: info-hams@ucsd.edu

SB KEPS @ AMSAT \$ORBS-365.N  
2Line Orbital Elements 365.AMSAT

HR AMSAT ORBITAL ELEMENTS FOR AMATEUR SATELLITES IN NASA FORMAT  
FROM WA5QGD FORT WORTH,TX December 31, 1993  
BID: \$ORBS-365.N

DECODE 2-LINE ELSETS WITH THE FOLLOWING KEY:

1 AAAAAU 00 0 0 BBBB.BBBBBBBB .CCCCCCCC 00000-0 00000-0 0 DDDZ  
2 AAAAA EEE.EEEE FFF.FFFF GGGGGGG HHH.HHHH III.IIII JJ.JJJJJJJKKKKKZ  
KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN  
G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM

TO ALL RADIO AMATEURS BT

AO-10

1 14129U 83058B 93360.41320507 -.000000311 00000-0 10000-3 0 2379  
2 14129 27.2015 349.6000 6021502 141.2833 282.9354 2.05879668 79220

UO-11

1 14781U 84021B 93362.07707859 .000000213 00000-0 44030-4 0 6439  
2 14781 97.7938 19.7461 0012661 94.0796 266.1858 14.69108205525188

RS-10/11

1 18129U 87054A 93362.24286562 .000000047 00000-0 35308-4 0 8413  
2 18129 82.9283 95.2053 0012703 133.8292 226.3913 13.72328759326464

AO-13

1 19216U 88051B 93358.73417009 -.000000359 00000-0 10000-4 0 8510  
2 19216 57.9609 277.2102 7211124 331.1032 3.3836 2.09723023 42354

FO-20

1 20480U 90013C 93364.10373196 -.000000018 00000-0 32924-4 0 6409  
2 20480 99.0174 183.0203 0541189 2.6742 357.7056 12.83223163182445

AO-21

1 21087U 91006A 93363.78995260 .000000094 00000-0 82657-4 0 4017  
2 21087 82.9450 268.0636 0034363 194.3521 165.6661 13.74530789146316

RS-12/13

1 21089U 91007A 93362.84080438 .000000036 00000-0 22759-4 0 6439  
2 21089 82.9219 137.7780 0028333 221.5044 138.3962 13.74032271145252

ARSENE

1 22654U 93031B 93321.93138545 -.000000051 00000-0 10000-3 0 2108  
2 22654 1.4185 113.8817 2935300 161.0091 211.2000 1.42195961 2757

UO-14

1 20437U 90005B 93362.19825192 .000000046 00000-0 34841-4 0 9422  
2 20437 98.6028 84.2277 0011292 337.6205 22.4483 14.29812711205154

AO-16

1 20439U 90005D 93362.19044136 .000000021 00000-0 25387-4 0 7432

2	20439	98.6109	85.2804	0011413	338.4753	21.5948	14.29868863205161
D0-17							
1	20440U	90005E	93362.72112281	.00000022	00000-0	25520-4 0	7430
2	20440	98.6115	86.0734	0011486	336.0862	23.9786	14.30006589205253
W0-18							
1	20441U	90005F	93362.27369208	.00000029	00000-0	28118-4 0	7448
2	20441	98.6107	85.6427	0012153	337.9287	22.1370	14.29983727205191
L0-19							
1	20442U	90005G	93362.19321976	.00000022	00000-0	25674-4 0	7425
2	20442	98.6119	85.7807	0012433	337.6335	22.4304	14.30076764205196
U0-22							
1	21575U	91050B	93362.39229816	.00000047	00000-0	30411-4 0	4436
2	21575	98.4537	75.2021	0008751	77.8526	282.3610	14.36876541128559
K0-23							
1	22077U	92052B	93362.88719632	-.00000037	00000-0	10000-3 0	3396
2	22077	66.0871	276.5452	0007562	329.2575	30.7992	12.86282651 64889
A0-27							
1	22825U	93061C	93362.71502970	.00000018	00000-0	25222-4 0	2418
2	22825	98.6728	75.1048	0008935	352.3570	7.7472	14.27597768 13362
I0-26							
1	22826U	93061D	93362.70832665	.00000012	00000-0	22595-4 0	2420
2	22826	98.6726	75.1103	0009492	353.4556	6.6499	14.27700094 13363
K0-25							
1	22830U	93061H	93362.19680552	.00000030	00000-0	29598-4 0	2424
2	22830	98.5723	73.6658	0010898	323.0543	36.9888	14.28024415 13290
NOAA-9							
1	15427U	84123A	93354.09639046	.00000113	00000-0	84054-4 0	6423
2	15427	99.0778	37.2630	0015442	8.0271	352.1146	14.13572305465048
NOAA-10							
1	16969U	86073A	93354.02187208	.00000062	00000-0	44748-4 0	5408
2	16969	98.5124	3.4782	0013795	128.8764	231.3649	14.24851603377095
MET-2/17							
1	18820U	88005A	93362.20414100	.00000056	00000-0	36911-4 0	2410
2	18820	82.5428	44.6042	0015693	305.2443	54.7243	13.84703211298694
MET-3/2							
1	19336U	88064A	93362.22551918	.00000051	00000-0	10000-3 0	2425
2	19336	82.5429	84.6681	0016253	335.1957	24.8381	13.16962602260759
NOAA-11							
1	19531U	88089A	93354.12874457	.00000106	00000-0	81723-4 0	4407
2	19531	99.1549	333.8243	0011091	278.6226	81.3688	14.12942396269933
MET-2/18							
1	19851U	89018A	93362.79483548	.00000079	00000-0	57302-4 0	2429
2	19851	82.5220	279.7621	0014935	351.2669	8.8229	13.84353093244113
MET-3/3							
1	20305U	89086A	93362.87463836	.00000044	00000-0	10000-3 0	9564
2	20305	82.5503	27.7388	0007101	1.6384	358.4743	13.04420277200692
MET-2/19							
1	20670U	90057A	93362.06042048	.00000023	00000-0	79036-5 0	7424

2 20670 82.5450 344.3934 0014555 269.7083 90.2412 13.84185237176943  
 FY-1/2  
 1 20788U 90081A 93360.47055517 .00000417 00000-0 30433-3 0 8513  
 2 20788 98.8535 21.0647 0016083 128.7875 238.6680 14.01407715169516  
 MET-2/20  
 1 20826U 90086A 93362.27946736 .00000083 00000-0 61800-4 0 7413  
 2 20826 82.5264 281.9547 0012825 160.7503 199.4144 13.83567961164128  
 MET-3/4  
 1 21232U 91030A 93361.86310622 .00000050 00000-0 10000-3 0 6483  
 2 21232 82.5410 290.7099 0011909 255.3812 104.5990 13.16458134128818  
 NOAA-12  
 1 21263U 91032A 93354.09713546 .00000151 00000-0 87438-4 0 8471  
 2 21263 98.6387 20.6638 0013805 38.8062 321.4103 14.22347172135079  
 MET-3/5  
 1 21655U 91056A 93362.17791313 .00000051 00000-0 10000-3 0 6453  
 2 21655 82.5558 237.5032 0012942 268.1655 91.7985 13.16826722113953  
 MET-2/21  
 1 22782U 93055A 93362.91772042 .00000054 00000-0 36147-4 0 2423  
 2 22782 82.5473 341.3647 0022838 347.0390 13.0185 13.82995463 16554  
 MIR  
 1 16609U 86017A 93364.19950354 .00010973 00000-0 14240-3 0 664  
 2 16609 51.6194 314.7124 0005815 145.1002 215.0377 15.59385717449681  
 HUBBLE  
 1 20580U 90037B 93363.20816968 .00000799 00000-0 64998-4 0 4134  
 2 20580 28.4701 247.6909 0006246 111.9745 248.1500 14.90398236 4001  
 GRO  
 1 21225U 91027B 93356.46954065 .00003496 00000-0 79758-4 0 382  
 2 21225 28.4628 17.8570 0003464 25.0031 335.0734 15.39616634 29662  
 UARS  
 1 21701U 91063B 93362.29467793 .00002147 00000-0 20924-3 0 4449  
 2 21701 56.9814 123.8167 0005590 106.6502 253.5156 14.96341260125352  
 POSAT  
 1 22829U 93061G 93362.61920446 .00000038 00000-0 33117-4 0 2349  
 2 22829 98.6675 75.0256 0010212 340.0264 20.0536 14.27992747 13356  
 /EX

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Date: 31 Dec 93 16:39:00 GMT  
 From: news-mail-gateway@ucsd.edu  
 Subject: ORBS\$365.MICRO.AMSAT  
 To: info-hams@ucsd.edu

SB KEPS @ AMSAT \$ORBS-365.D  
 Orbital Elements 365.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS  
 FROM WA5QGD FORT WORTH,TX December 31, 1993

BID: \$ORBS-365.D  
TO ALL RADIO AMATEURS BT

Satellite: UO-14  
Catalog number: 20437  
Epoch time: 93362.19825192  
Element set: 942  
Inclination: 98.6028 deg  
RA of node: 84.2277 deg  
Eccentricity: 0.0011292  
Arg of perigee: 337.6205 deg  
Mean anomaly: 22.4483 deg  
Mean motion: 14.29812711 rev/day  
Decay rate: 4.6e-07 rev/day^2  
Epoch rev: 20515  
Checksum: 293

Satellite: A0-16  
Catalog number: 20439  
Epoch time: 93362.19044136  
Element set: 743  
Inclination: 98.6109 deg  
RA of node: 85.2804 deg  
Eccentricity: 0.0011413  
Arg of perigee: 338.4753 deg  
Mean anomaly: 21.5948 deg  
Mean motion: 14.29868863 rev/day  
Decay rate: 2.1e-07 rev/day^2  
Epoch rev: 20516  
Checksum: 305

Satellite: D0-17  
Catalog number: 20440  
Epoch time: 93362.72112281  
Element set: 743  
Inclination: 98.6115 deg  
RA of node: 86.0734 deg  
Eccentricity: 0.0011486  
Arg of perigee: 336.0862 deg  
Mean anomaly: 23.9786 deg  
Mean motion: 14.30006589 rev/day  
Decay rate: 2.2e-07 rev/day^2  
Epoch rev: 20525  
Checksum: 285

Satellite: W0-18  
Catalog number: 20441  
Epoch time: 93362.27369208



Element set: 744  
Inclination: 98.6107 deg  
RA of node: 85.6427 deg  
Eccentricity: 0.0012153  
Arg of perigee: 337.9287 deg  
Mean anomaly: 22.1370 deg  
Mean motion: 14.29983727 rev/day  
Decay rate: 2.9e-07 rev/day^2  
Epoch rev: 20519  
Checksum: 315

Satellite: L0-19

Catalog number: 20442  
Epoch time: 93362.19321976  
Element set: 742  
Inclination: 98.6119 deg  
RA of node: 85.7807 deg  
Eccentricity: 0.0012433  
Arg of perigee: 337.6335 deg  
Mean anomaly: 22.4304 deg  
Mean motion: 14.30076764 rev/day  
Decay rate: 2.2e-07 rev/day^2  
Epoch rev: 20519  
Checksum: 293

Satellite: U0-22

Catalog number: 21575  
Epoch time: 93362.39229816  
Element set: 443  
Inclination: 98.4537 deg  
RA of node: 75.2021 deg  
Eccentricity: 0.0008751  
Arg of perigee: 77.8526 deg  
Mean anomaly: 282.3610 deg  
Mean motion: 14.36876541 rev/day  
Decay rate: 4.7e-07 rev/day^2  
Epoch rev: 12855  
Checksum: 317

Satellite: K0-23

Catalog number: 22077  
Epoch time: 93362.88719632  
Element set: 339  
Inclination: 66.0871 deg  
RA of node: 276.5452 deg  
Eccentricity: 0.0007562  
Arg of perigee: 329.2575 deg  
Mean anomaly: 30.7992 deg

Mean motion: 12.86282651 rev/day  
Decay rate: -3.7e-07 rev/day^2  
Epoch rev: 6488  
Checksum: 336

Satellite: A0-27

Catalog number: 22825  
Epoch time: 93362.71502970  
Element set: 241  
Inclination: 98.6728 deg  
RA of node: 75.1048 deg  
Eccentricity: 0.0008935  
Arg of perigee: 352.3570 deg  
Mean anomaly: 7.7472 deg  
Mean motion: 14.27597768 rev/day  
Decay rate: 1.8e-07 rev/day^2  
Epoch rev: 1336  
Checksum: 320

Satellite: I0-26

Catalog number: 22826  
Epoch time: 93362.70832665  
Element set: 242  
Inclination: 98.6726 deg  
RA of node: 75.1103 deg  
Eccentricity: 0.0009492  
Arg of perigee: 353.4556 deg  
Mean anomaly: 6.6499 deg  
Mean motion: 14.27700094 rev/day  
Decay rate: 1.2e-07 rev/day^2  
Epoch rev: 1336  
Checksum: 301

Satellite: K0-25

Catalog number: 22830  
Epoch time: 93362.19680552  
Element set: 242  
Inclination: 98.5723 deg  
RA of node: 73.6658 deg  
Eccentricity: 0.0010898  
Arg of perigee: 323.0543 deg  
Mean anomaly: 36.9888 deg  
Mean motion: 14.28024415 rev/day  
Decay rate: 3.0e-07 rev/day^2  
Epoch rev: 1329  
Checksum: 306

/EX

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Date: 31 Dec 93 16:42:00 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: ORBS\$365.WEATH,AMSAT  
To: info-hams@ucsd.edu

SB KEPS @ AMSAT \$ORBS-365.W  
Orbital Elements 365.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES  
FROM WA5QGD FORT WORTH,TX December 31, 1993  
BID: \$ORBS-365.W  
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9  
Catalog number: 15427  
Epoch time: 93354.09639046  
Element set: 642  
Inclination: 99.0778 deg  
RA of node: 37.2630 deg  
Eccentricity: 0.0015442  
Arg of perigee: 8.0271 deg  
Mean anomaly: 352.1146 deg  
Mean motion: 14.13572305 rev/day  
Decay rate: 1.13e-06 rev/day^2  
Epoch rev: 46504  
Checksum: 283

Satellite: NOAA-10  
Catalog number: 16969  
Epoch time: 93354.02187208  
Element set: 540  
Inclination: 98.5124 deg  
RA of node: 3.4782 deg  
Eccentricity: 0.0013795  
Arg of perigee: 128.8764 deg  
Mean anomaly: 231.3649 deg  
Mean motion: 14.24851603 rev/day  
Decay rate: 6.2e-07 rev/day^2  
Epoch rev: 37709  
Checksum: 314

Satellite: MET-2/17  
Catalog number: 18820  
Epoch time: 93362.20414100  
Element set: 241

Inclination: 82.5428 deg  
RA of node: 44.6042 deg  
Eccentricity: 0.0015693  
Arg of perigee: 305.2443 deg  
Mean anomaly: 54.7243 deg  
Mean motion: 13.84703211 rev/day  
Decay rate: 5.6e-07 rev/day^2  
Epoch rev: 29869  
Checksum: 276

Satellite: MET-3/2  
Catalog number: 19336  
Epoch time: 93362.22551918  
Element set: 242  
Inclination: 82.5429 deg  
RA of node: 84.6681 deg  
Eccentricity: 0.0016253  
Arg of perigee: 335.1957 deg  
Mean anomaly: 24.8381 deg  
Mean motion: 13.16962602 rev/day  
Decay rate: 5.1e-07 rev/day^2  
Epoch rev: 26075  
Checksum: 303

Satellite: NOAA-11  
Catalog number: 19531  
Epoch time: 93354.12874457  
Element set: 440  
Inclination: 99.1549 deg  
RA of node: 333.8243 deg  
Eccentricity: 0.0011091  
Arg of perigee: 278.6226 deg  
Mean anomaly: 81.3688 deg  
Mean motion: 14.12942396 rev/day  
Decay rate: 1.06e-06 rev/day^2  
Epoch rev: 26993  
Checksum: 320

Satellite: MET-2/18  
Catalog number: 19851  
Epoch time: 93362.79483548  
Element set: 242  
Inclination: 82.5220 deg  
RA of node: 279.7621 deg  
Eccentricity: 0.0014935  
Arg of perigee: 351.2669 deg  
Mean anomaly: 8.8229 deg  
Mean motion: 13.84353093 rev/day

Decay rate: 7.9e-07 rev/day<sup>2</sup>  
Epoch rev: 24411  
Checksum: 328

Satellite: MET-3/3  
Catalog number: 20305  
Epoch time: 93362.87463836  
Element set: 956  
Inclination: 82.5503 deg  
RA of node: 27.7388 deg  
Eccentricity: 0.0007101  
Arg of perigee: 1.6384 deg  
Mean anomaly: 358.4743 deg  
Mean motion: 13.04420277 rev/day  
Decay rate: 4.4e-07 rev/day<sup>2</sup>  
Epoch rev: 20069  
Checksum: 293

Satellite: MET-2/19  
Catalog number: 20670  
Epoch time: 93362.06042048  
Element set: 742  
Inclination: 82.5450 deg  
RA of node: 344.3934 deg  
Eccentricity: 0.0014555  
Arg of perigee: 269.7083 deg  
Mean anomaly: 90.2412 deg  
Mean motion: 13.84185237 rev/day  
Decay rate: 2.3e-07 rev/day<sup>2</sup>  
Epoch rev: 17694  
Checksum: 299

Satellite: FY-1/2  
Catalog number: 20788  
Epoch time: 93360.47055517  
Element set: 851  
Inclination: 98.8535 deg  
RA of node: 21.0647 deg  
Eccentricity: 0.0016083  
Arg of perigee: 128.7875 deg  
Mean anomaly: 238.6680 deg  
Mean motion: 14.01407715 rev/day  
Decay rate: 4.17e-06 rev/day<sup>2</sup>  
Epoch rev: 16951  
Checksum: 318

Satellite: MET-2/20  
Catalog number: 20826

Epoch time: 93362.27946736  
Element set: 741  
Inclination: 82.5264 deg  
RA of node: 281.9547 deg  
Eccentricity: 0.0012825  
Arg of perigee: 160.7503 deg  
Mean anomaly: 199.4144 deg  
Mean motion: 13.83567961 rev/day  
Decay rate: 8.3e-07 rev/day^2  
Epoch rev: 16412  
Checksum: 321

Satellite: MET-3/4

Catalog number: 21232  
Epoch time: 93361.86310622  
Element set: 648  
Inclination: 82.5410 deg  
RA of node: 290.7099 deg  
Eccentricity: 0.0011909  
Arg of perigee: 255.3812 deg  
Mean anomaly: 104.5990 deg  
Mean motion: 13.16458134 rev/day  
Decay rate: 5.0e-07 rev/day^2  
Epoch rev: 12881  
Checksum: 287

Satellite: NOAA-12

Catalog number: 21263  
Epoch time: 93354.09713546  
Element set: 847  
Inclination: 98.6387 deg  
RA of node: 20.6638 deg  
Eccentricity: 0.0013805  
Arg of perigee: 38.8062 deg  
Mean anomaly: 321.4103 deg  
Mean motion: 14.22347172 rev/day  
Decay rate: 1.51e-06 rev/day^2  
Epoch rev: 13507  
Checksum: 285

Satellite: MET-3/5

Catalog number: 21655  
Epoch time: 93362.17791313  
Element set: 645  
Inclination: 82.5558 deg  
RA of node: 237.5032 deg  
Eccentricity: 0.0012942  
Arg of perigee: 268.1655 deg

Mean anomaly: 91.7985 deg  
Mean motion: 13.16826722 rev/day  
Decay rate: 5.1e-07 rev/day^2  
Epoch rev: 11395  
Checksum: 316

Satellite: MET-2/21  
Catalog number: 22782  
Epoch time: 93362.91772042  
Element set: 242  
Inclination: 82.5473 deg  
RA of node: 341.3647 deg  
Eccentricity: 0.0022838  
Arg of perigee: 347.0390 deg  
Mean anomaly: 13.0185 deg  
Mean motion: 13.82995463 rev/day  
Decay rate: 5.4e-07 rev/day^2  
Epoch rev: 1655  
Checksum: 300

/EX

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Date: Fri, 31 Dec 1993 22:13:40 GMT  
From: usc!howland.reston.ans.net!agate!iat.holonet.net!bwilkins@network.ucsd.edu  
Subject: Repeater database?  
To: info-hams@ucsd.edu

dts@world.std.com (Daniel T Senie)after my editing... writes:  
: In article <1993Dec30.183810.9862@newshost.pictel.com> wpns@newshost.pictel.com  
(Willie Smith) writes:  
: >dts@world.std.com (Daniel T Senie) writes:  
: >>The repeater directory does NOT list evrey frequency in use. Many frequencies  
: >>are used for other purposes than repeaters, yet are sensitive to interference.  
: >>When you pick a simplex frequency, please keep this in mind!  
: >  
:  
: There is a BIG PROBLEM in that the 440 band plan lists only ONE simplex  
: frequency. This is STUPID.

The 440 band plan is REPEATERS ! The simplex area of the UHF band is 431  
- 433 MHz surly you can find a simplex channel in the two mhz allocated.

Here in northern California we talk simplex on our repeater Outputs so we  
don't miss any activity on the repeater. Ok that means 200 simplex  
channels. If you are not a repeater user then use an Output frequency that  
is not in use in your area. Same goes for cross-band repeat...operate

on unused Output frequencies in UHF. Be prepared to move frequency until you find a clear frequency. Operating on a coordinated input frequency can cause harmful interference to a vary distant repeater.

Coordinated 440 simplex frequencies here in Northern California are:

446.000 Nationwide fm simplex  
441.000 Remote Bases and cross-band repeaters  
446.500 fm simplex most user groups use ctcss encode decode  
441.500 mixed use 1200 bd packet

441.875 coordinated test pair for duplex activities ctcss encode decode

:  
: As for crossband repeat functions of radios, these make the radio into a  
: REPEATER. Coordination is required to keep from interfering. Just where on  
: the band are you going to land those signals? What if it is in the middle  
: of someone's ATV or high-speed packet? The channel might sound perfectly  
: clear with either of these, since your narrowband receiver may not even  
: hear the wide signal.

Most cross-band repeaters do not identify properly so when they cause interference they are extremly hard to track down. So when you are eventually discovered be prepared for flames...

:  
: If your local frequency coorinator has not set up a full complement of  
: simplex and test channels, then go to the meetings of the coordination  
: council and ask that this be done! As I see you are in New England, I can  
: give you moreinformation on the subject regarding the 440 band, if you are  
: interested.  
:  
: Dan Senie N1JEB

Thanks Dan

bob

--  
Bob Wilkins n6fri voice 440.250+ 100pl san francisco bay area  
bwilkins@cave.org packet n6fri @ n6eeg.#nocal.ca.usa.na

-----  
Date: Fri, 31 Dec 1993 23:20:00 GMT  
From: world!dts@uunet.uu.net  
Subject: Repeater database?



To: info-hams@ucsd.edu

In article <CIx72u.1yo@iat.holonet.net> bwilkins@iat.holonet.net (Bob Wilkins n6fri) writes:

>dts@world.std.com (Daniel T Senie)after my editing... writes:

>: In article <1993Dec30.183810.9862@newshost.pictel.com> wpns@newshost.pictel.com (Willie Smith) writes:

>: >dts@world.std.com (Daniel T Senie) writes:

>: >>The repeater directory does NOT list evrey frequency in use. Many frequencies  
>: >>are used for other purposes than repeaters, yet are sensitive to interference.

>: >>When you pick a simplex frequency, please keep this in mind!

>: >

>:

>: There is a BIG PROBLEM in that the 440 band plan lists only ONE simplex  
>: frequency. This is STUPID.

>

>The 440 band plan is REPEATERS !

In your area 440 may be solely repeaters. This is NOT true in the New England area. It depends on the local coordination council.

> The simplex area of the UHF band is 431

>- 433 MHz surly you can find a simplex channel in the two mhz allocated.

Oh, this'll win you lots of friends. The frequencies you quote are the SSB/CW area of the band plan. FM in this area is NOT recommended.

>

>Here in northern California we talk simplex on our repeater Outputs so we  
>don't miss any activity on the repeater. Ok that means 200 simplex  
>channels. If you are not a repeater user then use an Output frequency that  
>is not in use in your area. Same goes for cross-band repeat...operate  
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>you find a clear frequency. Operating on a coordinated input frequency can  
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>

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>

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>: hear the wide signal.  
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>  
>:  
>: If your local frequency coordinator has not set up a full complement of  
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>: interested.  
>:  
>: Dan Senie N1JEB  
>  
>Thanks Dan  
>  
>bob  
>  
>--  
>Bob Wilkins n6fri                      voice 440.250+ 100pl san francisco bay area  
>bwilkins@cave.org                      packet n6fri @ n6eeg.#nocal.ca.usa.na  
>

--

```
-----  
Daniel Senie                      Internet:      dts@world.std.com  
Daniel Senie Consulting           n1jeb@world.std.com  
508-365-5352                      CompuServe:  74176,1347  
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End of Info-Hams Digest V93 #1528

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